

**The Treacherous Commute:
Could Biker Friendly Roads Promote Healthy Living and Protect
Commuters?**

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The obesity rate in North Carolina peaked at 28 percent in 2007, and with a population of over 9 million people, this steadily rising statistic shows that nearly 2.5 million North Carolinians are obese (Stuart 1, U.S. Obesity 1). As a result, there has been an alarming increase in the rates of hypertension, cardiovascular disease, and type 2 diabetes, along with a rise in the occurrence of numerous other obesity related conditions known to be life threatening. Perhaps even more disturbing is the onset of these conditions in children as young as twelve (Childhood 1). In an age of science, there exist many complicated and expensive procedures that can combat obesity, but the safest and healthiest path is through exercise. Preventing the above mentioned deadly conditions is as easy as commuting to work via bicycle rather than by car. Regretfully, in Greenville, North Carolina, the means to achieving a healthier and safer life may actually place one's life in danger.

The AHA's (American Heart Association) exercise recommendations for adults are, thirty or more minutes of moderate aerobic activity, done at least five times a week, for the promotion of healthy living. Almost twenty five percent of Americans are reported to participate in no leisure time activity, or exercise, an amount that is almost identical to the percent of obese North Carolinians. Experts project that if there is no change in lifestyle by 2030, then nearly 86 percent of the adult population will be obese. This seemingly extreme projection could result in a health care tab of \$956.9 billion (Study 1). It is no stretch to assume that Greenville can and will fall victim to some of these statistical nightmares. With research showing that a ten mile bike commute can burn nearly 1500 calories a day, and more than exceed the AHA recommendations for physical activity, it is quite upsetting that Greenville has not done more to promote bicycle commuting, and to make the roads safer for those who commute via bicycle (Bean 3). I propose that the city of Greenville petitions to become a Bicycle Friendly

Community, by the standards of the League of American Bicyclists, as well as adding bicycle lanes on some of the major roads, and providing monetary incentive for bicycle commuters.

This in effect will create a safer environment for bikers, Greenville residents, and will promote physical activity leading to a decline in obesity rates (O’Riordan 1-2).

First, the danger of biking on the roads and sidewalks of Greenville promotes rather than prevents obesity amongst Greenville residents. As a current Greenville bicycle commuter, I know firsthand the danger of commuting on the treacherous roads of the city, and can objectively say that safety is dismal, and the roads are not friendly to cyclists. In my short commute, which is less than two miles, I have faced verbal persecution from drivers, been clipped by the mirrors of cars, and was recently involved in a collision with a car. In example, on a daily basis Greenville car commuters have shouted at me to, “get off the road,” or to “ride [my] bike on the sidewalk!” Eventually, worn down by the harassment, I took the advice of the juvenile harassers and tried cycling on the sidewalk. One morning, while crossing a side street, I was hit by a driver who failed to stop at a stop sign, and neglected to look anywhere but to the oncoming traffic, before accelerating into me. I was thrown into the road, landing face first. Fortunately, no cars were coming so I only suffered minor injuries, though my life was in jeopardy while I was lying in the middle of Charles Boulevard, a busy Greenville thoroughfare, shocked from what had just occurred. Though the driver failed to stop at a stop sign, I was at fault, because as I found out soon afterwards, it is illegal to ride a bike on the sidewalk. This left me liable for all the damages. This experience exemplifies the danger facing Greenville bicycle commuters, and it does not seem farfetched to say that there is little incentive for current bikers to persevere the dangers of the road, and there is even less incentive for non-bikers to start up.

Many steps need to be taken by the city of Greenville to create a healthy, biker friendly environment, and it starts with the roads. Research by a Penn State University professor has shown that bikers will take longer routes, so long as they follow bike lanes, or designated bike routes (Redden 2). Also, in New York City, DOT (Division of Transportation) statistics have shown that the number of bicycle commuters has increased with the amount of bike lanes provided (Fried 2). Furthermore, in a survey held by Parkwood Research Associates, commuters were asked if “safe, separate designated bike paths” would compel them to commute more frequently by bike, yielding a positive response of 40 percent (Transportation 1). It is clear that the first step needed in Greenville is the implementation of more bike lanes, for if the trends of past research hold true for Greenville, then the addition of bike lanes should drastically boost the amount of people commuting via bicycle, yielding many positive results. As put in context, once bicycle lanes were added in Denmark, the crash rates dropped a staggering 35 percent (Safety 2). With the addition of safer roads, more people will desire to commute by bike, which should begin to cut away at obesity in Greenville (Transportation 1).

Another factor deterring Greenville residents from commuting by bicycle is a lack of financial incentive. Because Greenville is a college town, and college students are notorious for being broke, if East Carolina University, or the city of Greenville were to offer financial benefits to college students who chose to commute via bicycle, which they do not, the results could be astounding. In the previously cited survey held by the Parkwood Research Associates, commuters were also asked if “financial, or other incentives” would convince them to commute more frequently by bike (Transportation 1). This poll returned an answer of “yes” among 36 percent of the polled. The same results apply to the population of Greenville residents that are employed, though the financial incentives would more likely be provided by their employers,

though for many, that is the same source as the students, East Carolina University. Money provides a more persuasive motive for people who would not otherwise commute by bicycle, no matter the condition of the roads, or amount of bike lanes (Transportation 1).

Once some of the aforesaid changes are implemented, it is pertinent that Greenville take the steps provided by the League of American Bicyclists to become a Bicycle Friendly Community. As a Bicycle Friendly Community, Greenville would be held accountable by the league to increase “the percentage of trips made by bicycle by making communities more bicycle-friendly” (Action 1). Making the community friendlier to cyclists also includes, reducing car caused congestion by encouraging cycling on shorter trips, improving the overall wellness of the community through the promotion of regular biking, along with scores of other requirements that would benefit Greenville. Incorporating some, if not all of the values of the League of American Cyclists in Greenville will promote overall wellness, and aid in combating obesity. Becoming a Bicycle Friendly Community would effect much more than a drop in Greenville’s obesity rates, economic and environmental gains would result as well, saving the city money, and helping Greenville become green once again (Action 1).

The economic benefits of biking are astronomically high, as it is estimated that using the same quantity of energy in one gallon of gasoline, a person can travel 960 miles by bike (Hood 1). Not to mention, bicycles are far less expensive than cars, and their operation is not contingent upon the intake of costly gasoline. As a bonus for the city, bikes have little impact on roads, which have become a monetary graveyard in North Carolina. Once obesity rates begin to drop, due to the suggested changes, there will be even greater economic benefit, because obesity related conditions and diseases account for over eleven percent of all private health care spending (Economy 1). The cost of obesity has been estimated at over 122 billion dollars per

year, so even a slight decrease in the percentage of obesity in Greenville will have a large economic impact (Economic 1).

Another important benefit that comes with becoming a Bicycle Friendly Community is the positive impact on the environment. With the emissions from automobiles making up “31 percent of total carbon dioxide, 81 percent of carbon monoxide, and 49 percent of nitrogen oxides released in the U.S.” centering Greenville around bicycles rather than around cars, will help lower these exorbitant numbers (Environment 1). Research has shown that when an eight mile journey is taken by bike rather than in a car, fifteen pounds of pollutants are kept at bay. Decisions to bike these short distances have a huge effect on the air we breathe, because most pollutants are released at the beginning of a drive, so seemingly harmless short drives end up releasing more pollutants than do long drives, based on a per-mile basis. If the changes that constitute a Biker Friendly Community are made, then according to Michael Oppenheimer, an environmental scientist, many of the pollutants that cause respiratory problems will begin to disappear, creating a healthier environment for the whole community. Biking will create cleaner air to breathe, benefiting not only the bikers, but everyone in Greenville (Environment 1-2).

All the research presented shows that commuting by bike can only have a positive impact on the general health and well being of Greenville. Creating safer roads, by the addition of bike lanes, and by providing financial incentive to bike commuters, will supply the extra incentive to people who would not usually commute by bike. By becoming a Biker Friendly Community these changes will be supported and enhanced. Lowering the 28 percent obesity rate of North Carolina by any means is a welcome transformation. Though, if the ideas and suggestions presented in this paper are put into action, not only will the obesity rate likely decline, people of all walks of life will benefit from the economic and environmental side effects. Greenville needs

to undergo a massive renovation on its roads, its people, and its environment, and it starts with centering the community around biking.

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